



Hazardous Materials Program Plan



49 U.S.C. 5101 - The purpose of this chapter [49 U.S.C. Chapter 51] is to provide adequate protection against the *risks* to life and property *inherent* in the transportation of hazardous materials in commerce . . .”



Hazardous Materials Program Mission, Goals, and Strategies



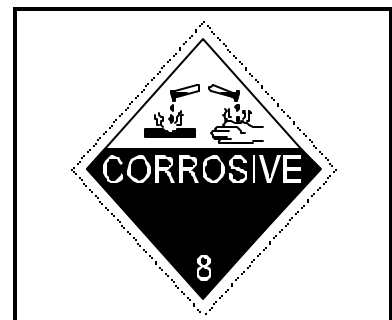
Cargo Tanks

The mission of the Federal Motor Carrier Safety Administration (FMCSA) is to improve truck and bus safety on our nation's highways. Our primary goals for measuring our success in accomplishing this mission are to reduce Commercial Truck-Related Fatalities 50% by 2010 and to reduce the number of persons injured in Large-Truck crashes by 20%. Although deaths and injuries due to exposure to hazardous materials in transportation are not included in the calculation of truck-related fatalities or injuries, FMCSA has an important secondary goal [DOT Strategic Goal G-1.6.9] to reduce the number of serious hazardous materials transportation

incidents. Developing programs to accomplish this secondary goal is the responsibility of the Hazardous Materials (HM) Division.

To accomplish this goal, the FMCSA will work with various governmental agencies, the hazardous materials industry, and other interested groups to promote hazardous materials safety. Our strategies will involve targeted enforcement of the hazardous materials regulations, enhancement of HM safety partnerships and education, assessment and management of the inherent risks of HM transportation, and development and implementation of new technologies to enhance HM safety. This plan outlines actions which will take place to advance these strategies in fiscal years 2000 and 2001.

Please note that each action in the plan is followed by an indication of what part of FMCSA would be lead in for accomplishing that action. These designations as the lead do not mean to exclude any part of the organization from having a responsibility to contribute to the action. The success of this plan ultimately depends on interdependence between the headquarters staff and the field staff at the Service Center, State Director, and Safety Investigator levels. The headquarters staff is available to assist and support the field staff in actions they lead. Conversely, the headquarters staff will also be calling on the field staff for input and support on actions they lead.



Hazardous Materials



Enforcement Strategies

Enforcement of the hazardous materials regulations (HMR) is the primary mechanism the field staff has for increasing compliance. The HM Program will develop programs and procedures achieve effect and efficient enforcement of the HMR. Activities which will be undertaken as part of this program strategy include:

- 1. Identify High Risk HM Carriers/Conduct Compliance Reviews.** High Risk HM Carriers can be identified using the SafeStat lists, complaints, or follow-up to serious crashes or HM incidents.

- Action 1: Complete HM Risk Assessment and Incorporate Results into SAFESTAT (HQ)
- Action 2: Cargo Tank Strike Force Activity During Road check (Field)
- Action 3: Identify Unreported HM Incidents During compliance reviews (Field)
- Action 4: Emphasize Compliance with HM Training Requirements (Field)
- Action 5: Emphasize Compliance with HM Registration (Field)

- Measure 1: HM Risk Incorporation Into SAFESTAT
- Measure 2: Increase Number of HM Carriers Receiving CRs over FY99 number of 102
- Measure 3: Increase roadside inspection of HM vehicles of FY99 number of 114,125
- Measure 4: Increase National Cargo Tank Project over 1999 levels of 949 inspections and 38 participating states
- Measure 5: Memos to field staff on identifying unreported HM incidents, emphasize HM training during CRs, emphasize HM Registration during CRs.

- 2. Identify High Risk Cargo Tank Facilities/Conduct Cargo Tank Facility Compliance Reviews.** High risk cargo tank facilities are facilities which: 1) are conducting inspections on cargo tanks used by high risk HM carriers; 2) are found to have possible violations during carrier compliance reviews or roadside inspections; or 3) are the subject of complaints. High risk cargo tank manufacturers will be identified by Headquarters and the Cargo Tank TAG based on knowledge of the cargo tank industry.

- Action 1: Identify high risk cargo tank manufacturers for review using (HQ and Field)
- Action 2: Obtain Engineering Support from FHWA (HQ)
- Action 3: Train FHWA Engineers involved in Cargo Tank Program (HQ)
- Action 4: Identify High Risk cargo tank maintenance facilities (Field)
- Action 5: Conduct compliance reviews of high risk cargo tank facilities (Field)



- Measure 1: Memo to field staff identifying cargo tank facilities for review
- Measure 2: 10 Cargo Tank Manufacturer Reviews in FY00
- Measure 3: Increase Cargo Tank maintenance facility reviews over 1999 levels
- Measure 4: Memo to field staff emphasizing policy about CT facility reviews

3. Identify High Risk Shippers/Conduct Shipper Compliance Reviews. High risk shippers can be identified by complaints, or violations discovered during roadside inspections, package inspections, or compliance reviews of HM carriers.

- Action 1: Enhance method for identifying high risk shippers (HQ)
- Action 2: Implement the HM Package Inspection Program (PIP) (Field)
- Action 3: Conduct Compliance Reviews on High Risk Shippers (Field)
- Action 4: Conduct National Shipper Strike Force Activity (Field)

- Measure 1: Develop new statement of work for Shipper Prioritization Contract
- Measure 2: Do policy requiring use of HM PIP during compliance reviews of HM Carriers
- Measure 3: Increase number of shipper compliance reviews from 1999 level
- Measure 4: Increase number of inspections and reviews during Shipper Check 2000 over 1999 levels.



Partnership & Education Strategies

There are approximately 45,000 HM carriers in the Motor Carrier Management Information System (MCMIS). In addition, there are many more entities involved in shipping HM or building and maintaining HM packages. Between these entities comprise a HM transportation system which ships over 800,000 shipments of HM every day. Since our enforcement efforts can not reach all of these entities, the HM Program will use partnerships and education to deliver HM safety messages to carriers, shippers, and cargo tank facilities which are not identified as posing a high risk. Partnerships will include working with other DOT Modal Administrations, States, groups such as the Commercial Vehicle Safety Alliance (CVSA), the Conference on Hazardous Materials Enforcement Development (COHMED), and industry associations. Educational outreach efforts will be directed toward Federal staff, State inspectors, and the regulated industry. Activities which will be undertaken as part of this program strategy include:

1. Increase HM Emphasis by States

- Action 1: Identify States for HM pilot projects. (HQ)
- Action 2: Obtain FY01 MCSAP Grant Project for HM Pilot Projects (HQ)
- Action 3: Include HM in FY01 State Safety Action Plan Planning Memo (HQ)
- Action 4: Have HM Risk Factor Incorporated into ISS (HQ)
- Action 5: Initiate IPA program for the HM Division. (HQ)

- Measure 1: Increase number of roadside inspections in FY01 over FY00 levels.
- Measure 2: HM emphasis included in planning memo
- Measure 3: Commitment from 3 States to participate in HM pilot projects
- Measure 4: Hire IPA for one year assignment.

2. Support HM Training for Federal and State Staff

- Action 1: Improve communication of HM interpretations and new rules to Field Staff and States (HQ)
- Action 2: Develop HM In-service training module (HQ)
- Action 3: Develop HM Regulation Refresher Documents (HQ)
- Action 4: Update HM Interpretations in MCREGIS (HQ)

- Measure 1: HM In-service training module
- Measure 2: Publication of 3 Regulation Refresher Documents
- Measure 3: New HM Interpretations added to MCREGIS



3. Conduct Educational Outreach to the Industry

- Action 1: Conduct Cargo Tank Interactive Seminars (HQ and Field)
- Action 2: Publish Outreach to Intrastate HM Carriers/Shippers (HQ)
- Action 3: Refine FMCSA HM Website (HQ)
- Action 4: Participate in Safety Alliances and Conferences (HQ and Field)

- Measure 1: Conduct 8 cargo tank interactive seminars in FY00
- Measure 2: Publish brochure about reporting of HM incidents
- Measure 3: Establish links between FMCSA and RSPA Website
- Measure 4: HM Program Participation in CVSA, COHMED, and HM Industry Meetings

4. Participate in RSPA Rulemakings and ONEDOT Activities

- Action 1: Participate in RSPA Rulemakings impacting safe highway transportation of HM (HQ)
- Action 2: Support HM Flagship Initiative (HQ)
- Action 3: Support Radioactive Flagship Initiative (HQ)
- Action 4: Participate in ONEDOT Strike Force Activities (Field)

- Measure 1: RSPA Publication of NPRM for cargo tank rulemakings HM-213 and HM-213a
- Measure 2: RSPA Publication of Final Rule on HM-213b
- Measure 3: FMCSA input into HM-223, HM-229, HM-230, and others as necessary
- Measure 4: Completion of FMCSA "Near Term" actions in HM and Radioactive Flagship Initiatives.
- Measure 5: FMCSA Participation in ONEDOT Activity concerning safe transportation of propane to Alaska.



Risk Management Strategies

In the Hazardous Materials Transportation Law, the Congress asked DOT to provide adequate protection against the risks to life and property inherent in the transportation of hazardous materials in commerce. The HM Division will undertake activities to understand and manage these risks which the Congress has recognized. Activities which will be undertaken as part of this program strategy include:

1. Conduct HM Risk Analysis Activities

- Action 1: Complete HM Risk Assessment with Battelle (HQ)
 - Action 2: Incorporate Results of HM Risk Assessment into SAFESTAT (HQ)
 - Action 3: Incorporate Results of HM Risk Assessment into ISS (HQ)
 - Action 4: Support RSPA's Risk Management Activities (HQ)
 - Action 5: Develop new list of serious HM violations to be used in enforcement decisions and given extra weight in SAFESTAT (HQ)
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- Measure 1: Increased number of HM Carriers on SAFESTAT List
 - Measure 2: Increase number of Roadside Inspections on HM Vehicles
 - Measure 3: Policy memo on list of serious HM violations
 - Measure 4: Add extra weight in SAFESTAT to new serious violations.

2. Improve HM Data Quality

- Action 1: Develop management reports to monitor of HM activity in the field. (HQ)
 - Action 2: Work with RSPA on revision of HM incident report form (HQ)
 - Action 3: Emphasize accuracy and completeness of HM incident reports during compliance reviews of HM carriers (HQ)
 - Action 4: Work with CVSA/States to train roadside inspectors on using the HM fields in the ASPEN Software (HQ)
 - Action 5: Coordinate HM incident data between FMCSA and RSPA. (HQ)
 - Action 6: Initiate Research Study on the Causes of Serious HM Incidents. (HQ)
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- Measure 1: Initiation of monthly management reports on HM program
 - Measure 2: RSPA publication of NPRM on incident reporting
 - Measure 3: Memo to field staff on reviewing incident reports during CRs
 - Measure 4: Increased useable data from HM fields in ASPEN software
 - Measure 5: Initiation of contract to perform HM incident causation analysis.



3. Manage HM Routing Program

- Action 1: Query States on existing designated/restricted HM routes (HQ)
 - Action 2: Publish Federal Register Notice with designated/restricted HM routes (HQ)
 - Action 3: Update and enhance HM Routing Internet site (HQ)
 - Action 4: Work to resolve routing disputes between states (HQ)
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- Measure 1: Letter to States requesting updated HM routing information
 - Measure 2: Publication of HM Routing Federal Register Notice
 - Measure 3: Increased use of HM Routing Website
 - Measure 4: Participation in meetings between States to discuss routing issues.



Technology Strategies

The use of technology to improve safety is a major FMCSA strategy in accomplishing our goal of reducing fatalities by 50% by 2010 and is equally applicable to improving HM safety. The HM program will pursue the identification and development of technologies which have the potential to enhance HM transportation safety and will facilitate deployment of these technologies by the industry. Activities which will be undertaken as part of this program strategy include:

1. Participate in Intelligent Vehicle Initiative (IVI) projects related to HM Safety

Action 1: Serve as AOTR on Generation 0 IVI field test of a rollover advisory and control system. (HQ)

Action 2: Serve as COTR on contract to evaluation Generation 0 field test. (HQ)

Measure 1: Commencement of Generation 0 test by 10/1/00.

2. Continue Cargo Tank Analysis Research

Action 1: Integrate use of DOT FACTS program into cargo tank analysis procedures (HQ)

Action 2: Conduct Finite Element Analysis (FEA) of cargo tank designs when necessary to determine compliance with the hazardous materials regulations (HQ)

Action 3: Develop damage tolerance guidelines based on cargo tank analysis activities (HQ)

Action 4: Verify UMTRI research concerning forces and energy involved in rollover crashes (HQ)

Measure 1: Integration of DOT FACTS program into cargo tank analysis activities

Measure 2: Conduct training with FHWA Engineers

Measure 3: Initiate HM indefinite quantities contract with tasks for cargo tank damage tolerance guidelines and verification of UMTRI research.

3. Explore new technologies to improve HM Safety

Action 1: Develop SOW for contractor to convene a dialogue of stakeholders in HM safety to explore HM safety technologies for development (HQ)

Measure 1: Convene HM technology conference in FY 01.



4. Develop Compliance/Enforcement Tools for Field Staff and States.

Action 1: Develop and implement HM Package Inspection Program (HQ)

Action 2: Develop HM worksheets and incorporate into computer software (HQ)

Measure 1: Policy implementing use of HM PIP

Measure 2: HM Worksheets in CAPRI